

NAVAL AIR WARFARE CENTER, TRENTON NJ

Ground Water Treatment Facility Operations and Maintenance

MONTHLY REPORT

MAY, 1999			
Total volume of ground water pumped for the month (gal):			<u>1,888,100</u>
Average Flow Rate (gpm)			<u>52.5</u>
Average Flow From Well		West Ditch Well	<u>0</u>
15BR	<u>15.3</u>	36BR	<u>0</u>
20BR	<u>10.5</u>	Other	<u>N/A</u>
41BR	<u>10</u>		
45BR	<u>5</u>		
48BR	<u>12.8</u>		
Time Operational (hours)		<u>599</u>	
Time Operational (percent)		<u>91%</u>	
Days in month		<u>26/31</u>	System was re-started on 5/4/99 at 1300 hrs.
Shut Downs			
Date/time started		Total Hours	Cause
5/24/99	14:00	19:15	Power failure due to electrical storm.
5/30/99	7:00	41:00	High inlet tepmperature to cat-ox
Sample Dates for lab analyses (results att)		11-May-99	
Figure/Table of Field GC data attached			
Estimated pounds of contaminants treated			
For month:		Total (lb.):	
Vinyl Chloride	42.86	798.75	
Dichloroethene	165.47	4823.149	
Trichloroethene	65.55	1645.12	
Total VOCs removed	273.88	7267	
Maintenance Notes (such as carbon change outs, etc.)		None	

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Naval Air Warfare Center, Trenton NJ

May, 1999 - Field Data Summary

Date	Sample ID	Sample Location	Vinyl Chloride (ug/L)	cis-1,2-DCE (ug/L)	trans-1,2-DCE (ug/L)	Trichloroethene (ug/L)	Iron (mg/L)
			GC	GC	GC	GC	Field Kit
5/11/99	01-MAY1199-01	System Influent	3,100	11,400	59	4,100	
5/11/99	06-MAY1199-01	Post Air Stripper	ND	ND	ND	ND	
5/11/99	08-MAY1199-01	Post Carbon Unit 1	ND	3	ND	ND	
5/11/99	10-MAY1199-01	System Effluent	ND	ND	ND	ND	
5/18/99	01-MAY1899-01	System Influent	2,600	10,700	38	4,300	
5/18/99	06-MAY1899-01	Post Air Stripper	ND	ND	ND	ND	
5/18/99	08-MAY1899-01	Post Carbon Unit 1	ND	5	ND	ND	
5/18/99	10-MAY1899-01	System Effluent	ND	ND	ND	ND	
5/21/99	01-MAY2199-01	System Influent	2,700	10,600	36	4,600	1.0
5/21/99	06-MAY2199-01	Post Air Stripper	ND	ND	ND	ND	1.0
5/21/99	08-MAY2199-01	Post Carbon Unit 1	ND	ND	ND	ND	
5/21/99	10-MAY2199-01	System Effluent	ND	ND	ND	ND	
5/25/99	01-MAY2599-01	System Influent	3,100	11,000	41	4,300	
5/25/99	06-MAY2599-01	Post Air Stripper	ND	ND	ND	ND	
5/25/99	08-MAY2599-01	Post Carbon Unit 1	ND	ND	ND	ND	
5/25/99	10-MAY2599-01	System Effluent	ND	ND	ND	ND	
5/28/99	01-MAY2899-01	System Influent	2,100	8,600	31	3,500	
5/28/99	06-MAY2899-01	Post Air Stripper	ND	ND	ND	ND	
5/28/99	08-MAY2899-01	Post Carbon Unit 1	ND	ND	6	ND	
5/28/99	10-MAY2899-01	System Effluent	ND	ND	ND	ND	
ELSA Discharge Limit			TTO Limit is 100 ppb from Sampling Point 10				5.0

Flow: Total gallons of treated effluent for this month: **1,888,100**
Average flow in gpm: **52.50**

ND: Not Detected

pH: Influent pH meter has been removed.

Avg. effluent pH: **8.99**

Pounds removed	This month:	Total to date:
Vinyl Chloride:	42.86	798.75
Cis-1,2-DCE:	164.82	4,818.75
Trans-1,2-DCE:	0.65	4.399
TCE:	65.55	1,645.12
Total organics removed, lbs	273.87	7,267.0

Notes:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

10MAY119901

Lab Name: CHEMTECH

Contract: FOSTER WHEELER ENVIR.

Project No.: 11682NJ

Site: _____

Location: _____

Group: 10MAY119

Matrix: (soil/water) WATER

Lab Sample ID: 072637

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N05830.D

Level: (low/med) _____

Date Received: 5/12/99

% Moisture: not dec. 100

Date Analyzed: 5/14/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
75-71-8	Dichlorodifluoromethane	1.8		U
75-01-4	Vinyl Chloride	1.3		U
74-83-9	Bromomethane	1.7		U
74-87-3	Chloromethane	1.8		U
75-00-3	Chloroethane	2		U
107-02-8	Acrolein	5		U
75-69-4	Trichlorofluoromethane	1.3		U
75-35-4	1,1-Dichloroethene	0.6		U
75-09-2	Methylene Chloride	0.7		U
156-60-5	trans-1,2-Dichloroethene	0.7		U
107-13-1	Acrylonitrile	5		U
75-34-4	1,1-Dichloroethane	0.4		U
67-66-3	Chloroform	0.8		U
71-55-6	1,1,1-Trichloroethane	0.9		U
56-23-5	Carbon Tetrachloride	1.5		U
71-43-2	Benzene	0.9		U
107-06-2	1,2-Dichloroethane	0.9		U
79-01-6	Trichloroethene	1		U
78-87-5	1,2-Dichloropropane	1		U
75-27-4	Bromodichloromethane	0.6		U
110-07-3	2-Chloroethyl Vinyl Ether	5		U
10061-01-5	cis-1,3-Dichloropropene	0.1		U
108-88-3	Toluene	1		U
10061-02-6	trans-1,3-Dichloropropene	0.2		U
79-00-5	1,1,2-Trichloroethane	0.9		U
127-18-4	Tetrachloroethene	0.9		U
124-48-1	Dibromochloromethane	1		U
108-90-7	Chlorobenzene	0.9		U
100-41-4	Ethylbenzene	0.9		U
75-25-2	Bromoform	0.5		U
79-34-5	1,1,2,2-Tetrachloroethane	1.1		U
	TOTAL TTO	0		

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

10MAY119901

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIR.
Project No. 1168 Site: _____ Location: _____ Group: 10MAY119
Matrix: (soil/water) WATER Lab Sample ID: O72637
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N05830.D
Level: (low/med) _____ Date Received: 5/12/99
% Moisture: not dec. 100 Date Analyzed: 5/14/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 1 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Acetone	12.71	4	J
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ANALYSIS REPORT

1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

10MAY119901

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM

Case No.:

SAS No.:

SDG No.: 11682

Matrix (soil/water): WATER

Lab Sample ID: 72637S

Level (low/med): LOW

Date Received: 05/12/99

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	8.8	B		P
7440-38-2	Arsenic	6.0	U		P
7440-39-3	Barium	139	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-47-3	Chromium	1.0	U		P
7440-50-8	Copper	33.0			P
7439-89-6	Iron	310			P
7439-92-1	Lead	2.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.0	U		P
7782-49-2	Selenium	4.0	U		P
7440-22-4	Silver	1.0	U		P
7440-28-0	Thallium	7.0	U		P
7440-66-6	Zinc	43.3			P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: MEG WATSON

DATE: 05/20/99

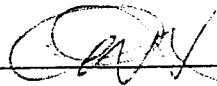
PROJECT # 11682 NJ

SAMPLE NUMBER- 72637
DATE SAMPLED- 05/11/99
DATE RECEIVED- 05/12/99
DELIVERED BY- FEDEX

SAMPLE ID- 10MAY119901
TIME SAMPLED- 1140 SAMPLER- CLIENT
TIME RECEIVED- 0930
RECEIVED BY- AD SAMPLE MATRIX- WW

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ANALYSIS	ANALYSIS			
	METHOD	DATE	TIME BY	RESULT UNITS
TOTAL SUSPENDED SOLIDS	EPA 160.2	05/17/99	HSP	3.00 mg/L

LABORATORY DIRECTOR 

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

01MAY119901

Lab Name: CHEMTECH

Contract: FOSTER WHEELER ENVIR.

Project No.: 11682NJ

Site: _____

Location: _____

Group: 10MAY119

Matrix: (soil/water) WATER

Lab Sample ID: 072638

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N05831.D

Level: (low/med) _____

Date Received: 5/12/99

% Moisture: not dec. 100

Date Analyzed: 5/14/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	89	
75-01-4	Vinyl Chloride	3000	E
74-83-9	Bromomethane	1.7	U
74-87-3	Chloromethane	1.8	U
75-00-3	Chloroethane	2	U
107-02-8	Acrolein	5	U
75-69-4	Trichlorofluoromethane	1.3	U
75-35-4	1,1-Dichloroethene	53	
75-09-2	Methylene Chloride	0.7	U
156-60-5	trans-1,2-Dichloroethene	29	
107-13-1	Acrylonitrile	5	U
75-34-4	1,1-Dichloroethane	0.4	U
67-66-3	Chloroform	0.8	U
71-55-6	1,1,1-Trichloroethane	0.9	U
56-23-5	Carbon Tetrachloride	1.5	U
71-43-2	Benzene	0.9	U
107-06-2	1,2-Dichloroethane	0.9	U
79-01-6	Trichloroethene	1800	E
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	0.6	U
110-07-3	2-Chloroethyl Vinyl Ether	5	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.2	U
79-00-5	1,1,2-Trichloroethane	0.9	U
127-18-4	Tetrachloroethene	0.9	U
124-48-1	Dibromochloromethane	1	U
108-90-7	Chlorobenzene	0.9	U
100-41-4	Ethylbenzene	0.9	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
	TOTAL TTO	4971	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

01MAY119901

Lab Name: CHEMTECH Contract: FOSTER WHEELER ENVIR.
Project No. 1168 Site: _____ Location: _____ Group: 10MAY119
Matrix: (soil/water) WATER Lab Sample ID: O72638
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N05831.D
Level: (low/med) _____ Date Received: 5/12/99
% Moisture: not dec. 100 Date Analyzed: 5/14/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Acetone	12.70	4	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

01MAY11990IDL

Lab Name: CHEMTECH

Contract: FOSTER WHEELER ENVIR.

Project No.: 11682NJ

Site: _____

Location: _____

Group: 10MAY11990

Matrix: (soil/water) WATER

Lab Sample ID: O72638DL

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N05838.D

Level: (low/med) _____

Date Received: 5/12/99

% Moisture: not dec. 100

Date Analyzed: 5/15/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 250.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
75-71-8	Dichlorodifluoromethane	460		UD
75-01-4	Vinyl Chloride	1600		D
74-83-9	Bromomethane	420		UD
74-87-3	Chloromethane	450		UD
75-00-3	Chloroethane	510		UD
107-02-8	Acrolein	1300		UD
75-69-4	Trichlorofluoromethane	320		UD
75-35-4	1,1-Dichloroethene	140		UD
75-09-2	Methylene Chloride	180		UD
156-60-5	trans-1,2-Dichloroethene	170		UD
107-13-1	Acrylonitrile	1300		UD
75-34-4	1,1-Dichloroethane	93		UD
67-66-3	Chloroform	210		UD
71-55-6	1,1,1-Trichloroethane	220		UD
56-23-5	Carbon Tetrachloride	380		UD
71-43-2	Benzene	210		UD
107-06-2	1,2-Dichloroethane	230		UD
79-01-6	Trichloroethene	2200		D
78-87-5	1,2-Dichloropropane	250		UD
75-27-4	Bromodichloromethane	150		UD
110-07-3	2-Chloroethyl Vinyl Ether	1300		UD
10061-01-5	cis-1,3-Dichloropropene	33		UD
108-88-3	Toluene	250		UD
10061-02-6	trans-1,3-Dichloropropene	58		UD
79-00-5	1,1,2-Trichloroethane	230		UD
127-18-4	Tetrachloroethene	230		UD
124-48-1	Dibromochloromethane	250		UD
108-90-7	Chlorobenzene	230		UD
100-41-4	Ethylbenzene	230		UD
75-25-2	Bromoform	130		UD
79-34-5	1,1,2,2-Tetrachloroethane	280		UD
	TOTAL TTO	3800		D

ANALYSIS REPORT

1

CLIENT SAMPLE #

INORGANIC ANALYSIS DATA SHEET

01MAY119901

Lab Name: CHEMTECH CONSULTING GROUP

Contract:

Lab Code: CHEM

Case No.:

SAS No.:

SDG No.: 11682

Matrix (soil/water): WATER

Lab Sample ID: 72638S

Level (low/med): LOW

Date Received: 05/12/99

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	5.8	B		P
7440-38-2	Arsenic	6.0	U		P
7440-39-3	Barium	148	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-47-3	Chromium	1.0	U		P
7440-50-8	Copper	56.4			P
7439-89-6	Iron	687			P
7439-92-1	Lead	2.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.0	U		P
7782-49-2	Selenium	4.0	U		P
7440-22-4	Silver	1.0	U		P
7440-28-0	Thallium	7.0	U		P
7440-66-6	Zinc	46.5			P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

REPORT OF ANALYSES

FOSTER WHEELER ENVIRONMENTAL
ONE OXFORD VALLEY
SUITE 200
LANGHORNE, PA 19047-
Attn: MEG WATSON

DATE: 05/20/99

PROJECT # 11682 NJ

SAMPLE NUMBER- 72638
DATE SAMPLED- 05/11/99
DATE RECEIVED- 05/12/99
DELIVERED BY- FEDEX

SAMPLE ID- 01MAY119901
TIME SAMPLED- 1152 SAMPLER- CLIENT
TIME RECEIVED- 0930
RECEIVED BY- AD SAMPLE MATRIX- WW

Page 1 of 1

ANALYSIS

TOTAL SUSPENDED SOLIDS

METHOD	ANALYSIS		BY	RESULT	UNITS
	DATE	TIME			
EPA 160.2	05/17/99		HSP	4.00	mg/L

LABORATORY DIRECTOR _____